

L 24472-65 ENG(j)/EWT(m)/EPF(c)/EPF(n)-2/EPR/EWP(t)/EWP(b) Pr-4/Pe-4/
Pu-4 IJP(c)/RPL JD/WJ/JW

ACCESSION NR: AT5000854

S/2800/64/000/008/0163/0179

35
34
1

AUTHOR: Skripka, V. G. (Engineer); Dykhno, N. M. (Candidate of chemical sciences)

TITLE: Solubility of helium and neon in liquid oxygen, nitrogen and argon

SOURCE: Vsesoyuznyy nauchno-issledovatel'skiy institut kislородnogo mashinostroyeniya. Trudy, no. 8, 1964. Apparaty i mashiny kislородnykh ustanovok (Apparatus and machines of oxygen plants), 163-179

TOPIC TAGS: oxygen plant, oxygen production, helium solubility, neon solubility, noble gas, air fractionation

ABSTRACT: The authors, doing initial research on the solubility of helium and neon in liquid oxygen and adding to data on the helium-neon-liquid argon system, used the circulation method for investigating phase equilibria as developed by Tamm and improved by Dodge and Dunbar. Gas circulation was effected by a magnetic pump and controlled by manometers at key points. Phase equilibria of the ideal gas system were determined separately. Nitrogen was held at the desired temperatures by automatic evacuation. Gas analyses were performed by interferometers with optical bulbs of 1000 mm length. Tests on the oxygen-helium system

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were run over temperatures of 67.5-90.3K and pressures of 5.93-25.96 atm. abs.; on the helium-nitrogen system over identical temperatures and pressures of 5.93-25.92 atm. abs.; on the helium-argon and neon-argon systems at 90.5K and pressures of 5.95-25.92 atm. abs.; and on the neon-oxygen and neon-nitrogen systems at temperatures of 67-90.3K and pressures of 5.93-26.01 atm. abs. Graphs showing pressure as a function of composition for both liquid and gaseous states were drawn on the basis of the data obtained. The solubility of helium in liquid oxygen, nitrogen, and argon is only 10-20% of that of neon under similar conditions. As a rule, an increase in temperature increases the solubility of the light inert gases in liquid oxygen and nitrogen. This is not so, however, for the neon-nitrogen system. Orig. art. has: 14 figures and 6 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut kislorodnogo mashinostroyeniya (All-union oxygen machine building scientific research institute)

00

ENCL: 00

SUB CODE: IC, IC

Q RIV SOV: 010

OTHER: 006

Card 2/2

L 23412-66 EWI(G)/EWI(M)/EMP(V)/I/EMP(T)/EMP(K)/EMP(R)/EMP(I) JD/MM

ACC NR: AP6004140

SOURCE CODE: UR/0125/66/000/001/0066/0068

AUTHOR: Vashchevskiy, V. F.; Gologovskiy, G. M.; Dykhno, S. L.

ORG: none

TITLE: Device for automatic monitoring of the parameters of resistance-welding regime

SOURCE: Avtomaticheskaya svarka, no. 1, 1966, 66-68

TOPIC TAGS: resistance welding, welding equipment component, power monitor, pulse signal, metallurgic testing machine, circuit design, automatic control equipment

ABSTRACT: The authors present a description of the P-192 device for automatic monitoring and signaling of deviations from the set welding regime according to the amplitude of welding current and the parameter

$$A = \int_0^{t_d} i_w dt \text{ (where } t_d \text{ is the duration of the welding-current pulse).}$$

Range of current intensities measured: 1-100 kilo-amperes (ka). Welding-current measurement error: $\pm 5\%$. The device (Fig. 1) is connected to the welding machine by two circuits. The first circuit (Fig. 2), represented by toroidal measuring transform-

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UDC: 621.791.76:681.1/.2

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ACC NR: AP6004140

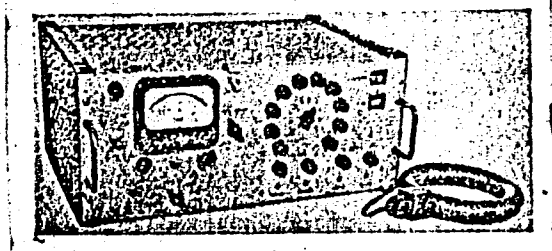
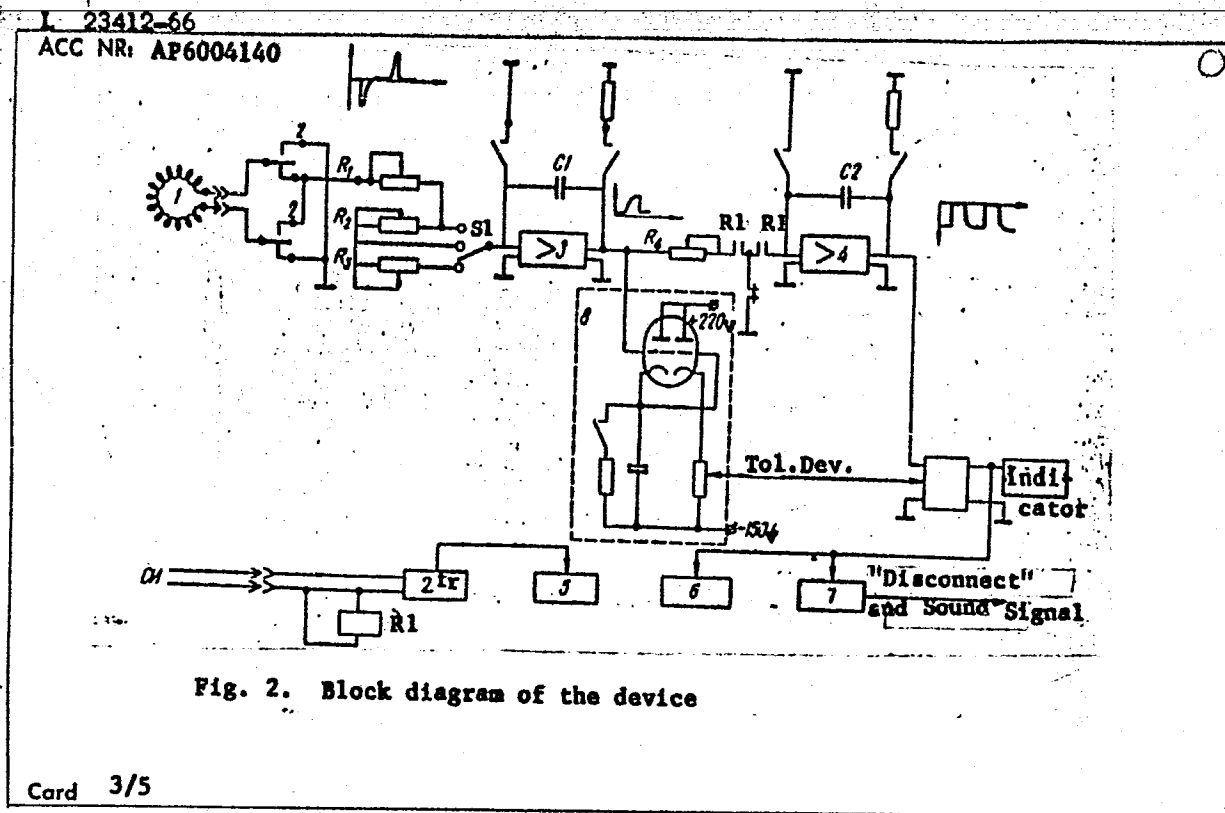


Fig. 1. External view of the P-192 device

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er 1, is connected to the bottom holder of the welding machine. The second circuit pertains to synchronizing voltage pulses which must overlap in time the welding-current pulses and which are used to trigger flip-flop relay 2; the contacts of this relay switch the output of the toroidal transformer, since each time the polarity of current pulses in the welding machine is reversed. The voltage from the toroidal transformer flows to electronic integrator 3 of the DC tube-amplifier type. The input resistors R_1 , R_2 , R_3 of the amplifier are designed to regulate the time constant of the RC of the integrator. Switch S1 is used to adjust the measurement range to 10, 50 or 100 ka. The integrator output is connected to memory element 8 which records the amplitude value of the restored voltage pulse at the output of integrator 3, whence the pulse is conveyed to a second integrator (DC amplifier 4 and integrating elements -- resistor R_4 and capacitor C2). The contacts of relay R1 cause the resistor R_4 to be connected to the amplifier input and, during the passage of the welding-current pulse, the voltage

$$U_2 \approx \int_0^{t_d} U_1 dt = \int_0^{t_d} \left(\int \frac{di_w}{dt} dt \right) dt = \int_0^{t_d} i_w dt.$$

forms at the output of integrator 4. The voltage proportional to the amplitude of the welding-current pulse, from the output of the memory element, and the voltage pro-

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ACC NR: AP6004140

portional to the amount of electricity passed during a welding pulse, from the output of the second integrator (amplifier 4), proceed to the device for measuring the tolerances of the parameters, where the variations in the pulse amplitude and the amount of electricity therein, when they exceed the upper and lower limits of the tolerance range, are recorded correct to $\sim 0.5\%$ and indicated by the pointer on the dial. The device also includes built-in electromechanical counters of points at which the current or electricity exceed the specified tolerances and relay counters for generating the "disconnect" signal (opening of contacts) or sound signal (closing of contacts). It is also equipped with sockets for connecting an oscillograph by means of which the current-pulse shape can be visually monitored. The device can be used to monitor the performance of DC, AC and capacitor welding machines. It can be adjusted to three different scales of measurement of current-pulse amplitude and of the corresponding heating (amount of electricity in a pulse): 10 ka, 5 ka-sec; 50 ka, 25 ka-sec; and 100 ka, 50 ka-sec. Currently, a new version of the device, with digital readout which should greatly simplify the measurements, is being developed. Orig. art. has: 3 figures.

SUB CODE: 09, 11, 13/ SUBM DATE: 03Jun65/ ORIG REF: 005/ OTH REF: 000

Card 5/5 *dm*

PA 47/49T52

USSR/Medicine - Blood Transfusion, Mar/Apr 49
Intrasternal
Medicine - Psoriasis, Therapy

"Treatment of Psoriasis by Intrasternal Blood
Transfusions," Yu. A. Dykhno, Azerbaijan
Dermato-Venerol Inst, 3 pp

"Vest Venerol i Dermatol" No 2

Intrasternal transfusion method is not com-
plicated or dangerous. Second modification of
method can be used under any condition. Mod-
ification may be used successfully for treat-
ment of psoriasis, and for shock therapy. Div

47/49T52

USSR/Medicine - Blood Transfusion, Mar/Apr 49
Intrasternal (Contd)

Azerbaijani Dermato-Venerol Inst: A. A. Aliev
Head Sci Dept of Inst: Prof B. A. Eyvazov.

47/49T52

DYKHNO, YU. A.

DYKHNO, Yu. A.

DYKHNO, YU. A.

29916

Nyekotoryye osobynnosti pyeryelivaniya krovi dyetyam. Sov. Myeditsina,
1949, No 9, s. 36-37

Radushchkyevich, V. P. K Voprosu ob opyertsii pri tyazhelyoy gymofilii
pop zashchltoy pyeryelivaniya krovi. — Sm. 29945

11. Endokrinologiya

SO: LETOPIS' NO. 40

DYKHNO, Yu.A.

Method of blood transfusion into the marrow of the sternal manu-
brium. Sovet.med. No.2:13-15 Feb 51. (CLML 20:6)

1. Baku.

Dykhno, Yu. A.

USSR, General Problems of Pathology - Allergy.

T-2

Abs Jour : Ref Zhur - Biol., No 3, 1958, 12548

Author : Dykhno, Yu.A., Kasova, S.K., Kulihev, A.Kh.

Inst : Not given

Title : The Treatment of Bronchial Asthma by Intrathoracic
Injection of Blood.

Orig Pub : Sb. tr. Azerb. n.-i. in-ta kurortol. i fiz. metodov leche-
niya, 1956, vyp. 2, 115-119.

Abstract : These are the results of intrathoracic instillation of
blood into 7 patients, most of whom had severe cases of
long duration. 5-10 ml of compatible donor's blood, or
the patient's own blood, to which 1.5-2 ml of 10% CaCl_2
solution had been added as a preservative, was introduced
intrasternally each week with an average of 8 transfu-
sions in all per patient. Sixty-six patients were cured

Card 1/2

USSR/General Problems of Pathology - Allergy.

T-2

Abs Jour : Ref Zhur - Biol., No 3, 1958, 12548

clinically, 18 improved and 3 remained unchanged. In the latter 3 patients there was some improvement noted, such as increased tones and immunobiologic resistance. In some cases the attack stopped at the time of the intrathoracic injection.

Card 2/2

DYKHNO, Yu. A.

DYKHNO, Yu. A., (Baku)

Intrathoracic infusions of blood for nonspecific stimulation.
Vrach.delo no.10:1089-1091 0 '57. (MIRA 10:12)

1. Azerbaydzhanskiy nauchno-issledovatel'skiy institut kurortologii i fizioterapii.
(BLOOD--TRANSFUSION)

DYKHNO, Yu.A. (Baku)

Objections raised to M.G. Abramov's article "Diagnostic punctures
of the hemopoietic organs and complications involved"
(Klinicheskaya meditsina, no.5, 1957). Klin.med. 36 no.7:155-156
Jl '58 (MIRA 11:11)

(PUNCTURES)

(HEMOPOIETIC SYSTEM)

DYKHNO, Yu.A.; ABDULLAYEV, D.M., prof., red.

[In roduction of blood and drugs through the incisura
jugularis sterni] Vvedenie krovi i lekarstv cherez iarem-
nuiu vyrezku grudiny. Baku, Azerneshr, 1963. 110 p.
(MIRA 17:4)

DYKHNO, Yu.A.

Etiology, pathogenesis and treatment of eczema. Sbor. trud.
Azerb. nauch.-issl. inst. kur. i fiz. metod. lech. no.9;
175-185 '63. (MIRA 18:8)

DYKHNOV, Nikolay Vasil'yevich; VLADIMIROV, A., red.; KONYASHINA, A., tekhn.
red.

[Heroism of the young] Podvig iunykh. [Moskva] Izd-vo TsK VIKSM
"Molodaya gvardiya," 1958. 94 p. (MIRA 11:10)

1. Sekretar' Alma-Atinskogo obkoma partii (for Dykhnov).
(Kazakhstan--Reclamation of land)

DYKHNOV, A. I., Cand Vet Sci (diss) -- "Changes in food subproducts of the first category when kept in commercial refrigerators". Saratov, 1960. 17 pp (Min Agric RSFSR, Kazan' Vet Inst im N. E. Bauman), 200 copies (KL, No 11, 1960, 136)

OL'KHOVOY, F.Ye.; LEMESHKO, N.I.; PEKHOVA, L.N.; SHUMAKOVA,
L.A.; ISHCHENKO, N.S.; 1961. BUDSEL, K.V., 1961.

[Antifriction bearings, construction equipment and
mechanized tools; a handbook] Podshipniki, kakhenil
stroitel'nykh mashin i mekhanizir vnanogo instrumeta;
spravochnik. Kiev, Budoveli'nykh, 1965. 213 p.

(MIRA 28:11)

1. Natsionalno-issuedvatei'akty i dokumty stroitel'nogo pro-
izvodstva. Dnepropetravskyi fabrik.

PHASE I BOOK EXPIRATION 307/3563

Method polucheniya i izmereniya radioaktivnykh preparatov; abornik
staty (Methods for the Production and Measurement of Radio-
active Preparations; collection of Articles) Moscow, Atomizdat,
1960. 307 p. Extra slip inserted. 6,000 copies printed.

General Ed.: Valeriy Viktorovich Bockharov; Ed.: M.A. Sagurov;
Tech. Ed.: N.A. Vlasova.

PURPOSE: This collection of articles is intended for scientific and
technical personnel working in the production of radioactive iso-
topes.

COVERAGE: The collection contains original studies on methods of
obtaining and measuring radioactive preparations. According to
the foreword, the articles contain new data, and are of theoretical
or practical interest to the extent that they discuss methods of
radioisotope production. In addition to several survey articles
on the production of radioisotopes, the collection contains dis-
cussions on the production of radioisotopes, including
active isolation methods, the production of radioisotopes, and
therapeutic preparations. Also discussed are methods for pre-
paring a number of tagged organic compounds, problems in the analy-
sis of tagged organic compounds, the absolute and relative measure-
ment of activity, and the radioisotope analysis of preparations.
New instruments and equipment are described and instructions con-
cerning measurement methods and techniques are included. V.I. Levin,
Candidate of Chemical Sciences, V.P. Bockharov, Candidate of Tech-
nical Sciences, I.M. Bockharov, Candidate of Biological Sciences,
and V.I. Shostak, Candidate of Chemical Sciences, are mentioned
as having helped directly in the selection and preparation of the
material for publication. References accompany each article.

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DYKHOVA, Zinaida Ivanovna; FEDOROV, Vladimir Mikhaylovich; MATVEYEVA,
A.V., red.; MAZEL', Ye.i., tekhn. red.

[Radioactive phosphorus P^{32}] Radioaktivnyi fosfor - P^{32} . Mo-
skva, Gos.izd-vo lit-ry v oblasti atomnoi nauki i tekhniki,
1961. 22 p. (MIRA 15:1)
(Phosphorus--Isotopes)

DYKHOVA, Z.I.; MATYUSHINA, N.A.; MOSKVINA, M.M.; PROKHOROVA, G.P.;
KHARLAMOV, V.T.; GRIKOV, Ye.I.; FODOR, G.; FILIP, I.

[Radioactive isotopes and labeled compounds; a catalog]
Radioaktivnye isotopy i mechenye soedineniya; katalog.
Moskva, Atomizdat, 1964. 341 p. (MIRA 18:1)

1. Sovet ekonomicheskoy vzaimopomoshchi. Postoyannaya komissiya po ispol'zovaniyu energii v mirnykh tselyakh.

DYKHOVICHNAYA, D.Ye.

Use of the pH-paper chromatography in the determination of the ionic nature of antibiotics produced by actinomycetes. Antibiotiki 8 no.10:939-942 0 '63.

(MIRA 17:10)

1. Otdel antibiotikov (zav. A.B. Chernomordik) Kiyevskogo instituta epidemiologii i mikrobiologii i kafedra obshchey khimii (zav. - prof. D.N. Strazhesko) Kiyevskogo meditsinskogo instituta imeni Bogomol'tsa.

AKHIEV, F. A.; DIRKOVICHNAIA, N. A.; LUCHNIKOV, I. A.; SHCHUKIN, S. I.

"The foundation of the highest part of the Dorogomilov Hotel in Moscow," Construction,
1952.

DYKHOVICHNAYA, N.A., inzhener; ARNDT, Yu.V., arkhitekt.

Designing pavilions for Soviet exhibitions abroad. Nov.tekh. i pered
op. v stroi. 19 no.11:13-19 N '56. (MIRA 10:1)
(Pavilions) (Precast concrete construction)

ONISHCHIK, L.I., prof., doktor tekhn.nauk; KORCHINSKIY, I.L., prof., doktor tekhn.nauk; BYKHOVSKIY, V.A., kand.tekhn.nauk; POLYAKOV, S.V., kand.tekhn.nauk; ~~DYKHOVICHNAYA, N.A., inzh.~~; YUSFIN, I.M., inzh.; DUZINKEVICH, S.Yu., inzh., nauchnyy red.; MUNITS, A.P., red.izd-va; BOROVNEV, N.K., tekhn.red.

[Strength analysis of bearing masonry walls of buildings to be constructed in seismic regions and instructions for performing the analysis] Primer rascheta na prochnost' kamennykh nesushchikh sten zdaniy, vozvodimykh v seismicheskikh rayonakh, i ukazaniya k primeru rascheta. Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam, 1958. 24 p. (MIRA 12:2)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut stroitel'nykh konstruksiy. 2. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruksiy Akademii stroitel'stva i arkhitektury SSSR (for Onishchik, Korchinskiy, Bykhovskiy, Polyakov).
3. Proyektnyy institut No.5 Ministerstva stroitel'stva RSFSR (for Dykhovichnaya, Yusfin).

(Earthquakes and building) (Walls)

ULITSKIY, I.I., kand.tekhn.nauk; RIVKIN, S.A., kand.tekhn.nauk; SAMOLETOV,
M.V., inzh.; DYKHOVICHNYY, A.A., inzh.; KORSAK, Yu., red.;
MATUSEVICH, S., tekhn.red.; PATSALIYUK, P., tekhn.red.

[Reinforced concrete construction elements; analysis and design]
Zhelezobetonnye konstruktsii; raschet i konstruirovaniye. Kiev,
Gos. izd-vo tekhn. lit-ry USSR, 1958. 875 p. (MIRA 12:2)
(Precast concrete construction)

DYKHOVICHNYI, A.A., inzh., KOROL', S.A., inzh.

Making static calculations on calculating machines. Prom. stroi. i
inzh. soor. 1 no.1:44-45 0 '59. (MIRA 13:12)
(Electronic calculating machines) (Girders)

DYKHOVICHNYY, A.A.

Determining the sizes of bases of eccentrically loaded right-angle foundations. Osn., fund.i mekh.grun. 2 no.1:25-27
'60. (MIRA 13:5)

(Foundations)

KOZLOV, Vladimir Shalevich; DYKHOVICHNYY, Aleksandr Aleksandrovich;
GONCHAR, A.S., red.; BERGER, K.V., red.; YEREMINA, I.A.,
tekhn. red.

[Design of reinforced-concrete elements; mechanical methods]
Raschet zhelezobetonnykh konstruktsii; mekhanizirovannye me-
tody. Kiev, Gosstroizdat USSR, 1963. 493 p. (MIRA 16:4)
(Calculating machines) (Precast concrete)

DYKHOVICHNYY, Yu.A., inzh.; KAMENKOVICH, M.S., inzh.; Prinimali
uchastiye: KONDRAT'YEV, A.N., inzh.; VIDGOL'TS, O.M., inzh.;
SKANAVI, A.N., kand. tekhn. nauk; BORODINA, I.S., red.izd-
va; SHKINEV, A.N., inzh., nauchnyy red.; MOCHALINA, Z.S., tekhn. red.

[Concise handbook on the design of residential and public
buildings] Kratkii spravochnik po proektirovaniu zhilykh i
grazhdanskikh zdaniy. Moskva, Gosstroizdat, 1963. 507 p.

(MIRA 16:5)

(Apartment houses--Design and construction)

(Public buildings--Design and construction)

DYKHOVICHNYY, A. I.

Technical and economic analysis of reinforced concrete floors designed according to different standards. Stroi. prom. 29, No 12, 1951.

1. DYKHOVICHNYI, A. I.
2. USSR (600)
4. Technology
7. Principles of computing and planning reinforced concrete. 2 izd. dop. 1 perer. Moskva, Ugletekhizdat, 1952.
9. Monthly List of Russian Accessions, Library of Congress, January, 1953, Unclassified.

OVICHNYY, A. I.

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 245 - I

BOOK

Call No.: AF589978

Author: DYKHOVICHNYY, A. I.

Full Title: STRUCTURAL MECHANICS: ABBREVIATED COURSE (2nd ed, revised)

Transliterated Title: Stroitel'naya mekhanika: Sokrashchenny kurs

Publishing Data

Originating Agency: None

Publishing House: State Publishing House of Literature on Construction and Architecture

Date: 1953

No. pp.: 284

No. of copies: 20,000

Editorial Staff

Editor: Snitko, I. K., Dotsent,
Kandidat Technical Sciences

Tech. Ed.: None

Editor-in-Chief: None

Appraisers: Staff of the Chair of
Structural Mechanics of the
Military Engineering Academy
imeni V. V. Kuybyshev and
Prof. V. A. Kiselev, Doctor of
Techn. Sci.

Others: Prof. I. M. Rabinovich, head of the
Chair of Structural Mechanics of the
Military Engineering Academy imeni
V. V. Kuybyshev

Stroitel'naya mekhanika
Sokrashchenny kurs

AID 245 - I

Text Data

Coverage: In this abbreviated course of structural mechanics, problems connected with statically determinate and indeterminate systems are discussed, as well as retaining walls, frames, flexible systems, the determination of stresses in statically indeterminate systems by the method of consistent deformation, and calculation of structures by the method of critical load. Sketches, photos.

The book can be considered as a good short textbook but does not include any new methods of analysis.

Purpose: Approved by the Ministry of Higher Education as a textbook for students not specializing in construction mechanics.

Facilities: Among the many names of Soviet scientists mentioned are: V. Z. Vlasov (theory of shells and thin-walled shafts); Academician B.G. Galerkin, Acad. A. N. Dinnik, N. V. Kornoukhov (theory of stability); Acad. A. N. Krylov, N. P. Puzyrevskiy (calculation of beams and plates on elastic foundations); N. S. Streletskiy, A. A. Gvozdev, and A. R. Rzhanitsyn (theory of calculation of structures based on critical stress).

No. of Russian and Slavic References: Many references in footnotes (1923-1950)

Available: A.I.D., Library of Congress.

2/2

Dykhovichnyy, Abram Ionovich

DYKHOVICHNYY, Abram Ionovich, prof.; DYKHOVICHNYY, Yuriy Abramovich, inzh.
PEREL'SHTEYN, H.L., otvetstvennyy red.; KRASOVSKIY, I.P., red.
izd-va; KOROVENKOVA, Z.A., tekhn.red.

[Reinforced concrete construction, with special applications to
the coal industry] Zhelezobetonnye konstruksii (s primerami ikh
primeneniia v ugol'noi promyshlennosti). Moskva, Ugletekhnizdat,
1957. 491 p. (MIRA 11:2)

1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR
(for Perel'shteyn)
(Reinforced concrete construction)
(Coal mines and mining)

24(6)

PHASE I BOOK EXPLOITATION

SOV/2455

Dykhovichnyy, Abram Ionovich, Professor

Stroitel'naya mekhanika; sokrashchennyy kurs (Structural Mechanics; Short Course) 3d ed., rev. Moscow, Ugletekhizdat, 1959. 342 p. 12,000 copies printed.

Ed.: I.K. Snitko, Professor; Ed. of Publishing House: Ye. P. Petrakova; Tech. Ed.: Z.A. Korovenkova.

PURPOSE: This textbook is intended for students of mining vuzes and students of other vuzes where short courses in structural mechanics are given.

COVERAGE: The textbook, a third edition, presents fundamental problems of statically determinate and indeterminate systems and retaining walls. Also discussed are the conditions of geometrical stability and analytical calculation of multiple spans, statically determinate beams, determinations of temperature effect, and other related problems. The author thanks Professors N.I. Bezukhov, V.D. Bychkov, G.K. Kleyn, L.I. Oni-

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Structural Mechanics; Short Course

SOV/2455

shchik, I.G. Popov, I.M. Rabinovich, S.A. Rogitskiy, A.I. Segal', A. A. Umanskiy, I.V. Urban, and Docents A.A. Dobrokhotov, N.N. Kurochkin and V.V. Chuvatov. There are no references.

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Structural Mechanics; Short Course

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AVAILABLE: Library of Congress
Card 12/12

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10-20-59

DYKHOVICHNYI, A. I.

BEYLINA, TS.O., inzhener; BLAGONADEZHDIN, V.Ye., inzhener; BOGUSLAVSKIY, P.Ye., kandidat tekhnicheskikh nauk; VORONKOV, I.M., professor, GITINA, L.Ya., inzhener; GROMAN, M.B., inzhener; GOROKHOV, N.V., doktor tekhnicheskikh nauk [deceased]; DENISYUK, I.N., kandidat tekhnicheskikh nauk; DOVZHIK, S.A., kandidat tekhnicheskikh nauk; DUKEL'SKIY, M.P., professor, doktor khimicheskikh nauk [deceased]; DYKHOVICHNYI, A.I., professor; ZHITKOV, D.G., professor, doktor tekhnicheskikh nauk; KOZLOVSKIY, N.S., inzhener; LAKHTIN, Yu.M., doktor tekhnicheskikh nauk; LEVENSON, L.B., professor, doktor tekhnicheskikh nauk [deceased]; LEVIN, B.Z., inzhener; LIPKAN, V.F., inzhener; MARTYNOV, M.V., kandidat tekhnicheskikh nauk; MOLEVA, T.I., inzhener; NOVIKOV, F.S., kandidat tekhnicheskikh nauk; OSETSKIY, V.M., kandidat tekhnicheskikh nauk; OSTROUMOV, G.A.; PONOMARENKO, Yu.F., kandidat tekhnicheskikh nauk; RAKOVSKIY, V.S., kandidat tekhnicheskikh nauk; REGIERER, Z.L., inzhener; SOKOLOV, A.N., inzhener; SOSUNOV, G.I., kandidat tekhnicheskikh nauk; STEPANOV, V.N., professor; SHEMAKHANOV, M.M., kandidat tekhnicheskikh nauk; EL'KIND, I.A., inzhener; YANUSHEVICH, L.V., kandidat tekhnicheskikh nauk; BOKSHITSKIY, Ya.M., inzhener, redaktor; BULATOV, S.B., inzhener, redaktor; GASHINSKIY, A.G., inzhener, redaktor; GRIGORYEV, V.S., inzhener, redaktor; YEGOROV, G.P., kandidat tekhnicheskikh nauk, redaktor; ZHARKOV, D.V., dotsent, redaktor; ZAKHAROV, Yu.G., kandidat tekhnicheskikh nauk, redaktor; KAMINSKIY, V.S., kandidat tekhnicheskikh nauk, redaktor; KOMARKOV, Ye.F., professor, redaktor; KOSTYLEV, B.N., inzhener, redaktor; POVAROV, L.S., kandidat tekhnicheskikh nauk, redaktor; ULINICH, F.R., redaktor; KLORIK'YAN, S.Kh., otvetstvennyy redaktor; GLADILIN, L.V., redaktor;

(Continued on next card)

HEYLINA, TS.O. --- (continued) Card 2.

RUPPENYIT, K.V., redaktor; TERPIGOREV, A.M., glavnyy redaktor;
BARABANOV, F.A., redaktor; BARANOV, A.I., redaktor; BUCHNEV, V.K.,
redaktor; GRAFOV, L.Ye., redaktor; DOKUKIN, A.V., redaktor; ZADEMID-
KO, A.N., redaktor; ZASYAD'KO, A.F., redaktor; KRASNIKOVSKIY, G.V.
redaktor; LETOV, N.A., redaktor; DISHIN, G.L., redaktor; MAN'KOV-
SKIY, G.I., redaktor; MEL'NIKOV, N.V., redaktor; ONIKA, D.G.,
redaktor; OSTROVSKIY, S.B., redaktor; POKROVSKIY, N.M., redaktor;
POLSTYANOV, G.N., redaktor; SKOCHINSKIY, A.A., redaktor; SONIN,
S.D., redaktor; SPIVAKOVSKIY, A.O., redaktor; STANCHENKO, I.K.,
redaktor; SUDOPLATOV, A.P., redaktor; TOPCHIEV, A.V., redaktor;
TROYANSKIY, S.V., redaktor; SHEVYAKOV, L.D., redaktor; BYKHOV-
SKAYA, S.N., redaktor izdatel'stva; ZAZUL'SKAYA, V.F., tekhniches-
skiy redaktor; PROZOROVSKAYA, V.L., tekhnicheskii redaktor.

[Mining; an encyclopedic handbook] Gornoe delo; entsiklopedicheski
spravochnik. Glav.red. A.M. Terpigorev. Chleny glav.red. F.A. Bara-
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DYKHOVICHNYY, Abram Ionovich, prof.; DYKHOVICHNYY, Yuriy Abramovich,
inzh.; PEREL'SHTEYN, N.L., retsenzent; LEV, M.A., inzh.,
retsenzent; CHECHKOV, L.V., red. izd-va; SABITOV, A., tekhn.
red.; PROZOROVSKAYA, V.L., tekhn. red.

[Reinforced-concrete structures and their use in mine construction] Zhелеzobetonnye konstruktsii i ikh primeneniye v shakhtnom stroitel'stve. 1^{zd}.2. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1962. 791 p. (MIRA 15:3)

1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Perel'shteyn).
(Reinforced concrete construction) (Mining engineering)

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Dissertation: "Analysis of Solutions for the Frames of High Buildings."
Cand Tech Sci, Moscow Order of Labor Red Banner Engineering Construction Inst
imeni V. V. Kuybyshev, 18 May 54. Vechernyaya Moskva, Moscow, 10 May 54.

SO: SUM 284, 26 Nov 1954

Dykhoval'nyy, Yuriy Abramovich

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PEREL'SHTEYN, N.L., otvetstvennyy red.; KRASOVSKIY, I.P., Fed.
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[Reinforced concrete construction, with special applications to
the coal industry] Zhelezobetonnye konstruktsii (s primerami ikh
primeneniia v ugol'noi promyshlennosti). Moskva, Ugletekhizdat,
1957. 491 p. (MIRA 11:2)

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(Reinforced concrete construction)
(Coal mines and mining)

DYKHOVICHNYY, Abram Ionovich, prof.; DYKHOVICHNYY, Yuriy Abramovich,
inzh.; PEREL'SHTEYN, N.L., retsenzent; LEV, M.A., inzh.,
retsenzent; CHECHKOV, L.V., red. izd-va; SABITOV, A., tekhn.
red.; PROZOROVSKAYA, V.L., tekhn. red.

[Reinforced-concrete structures and their use in mine construc-
tion] Zhelezobetonnye konstruksii i ikh primeneniye v shakht-
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1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury
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POL'SHIN, D.Ye.; RUDNITSKIY, N.Ya.; DYKHOVICHNYY, Yu.A.; MICHURIN, V.F.

Significant increase in the pressure on soil foundations of large-
block buildings. [Trudy] NII osn. no.49:60-67 '62. (MIRA 15:12)

1. Upravleniye po proyektirovaniyu zhilishchno-grazhdanskogo i
kommunal'nogo stroitel'stva g. Moskvy (for Dykhovichnyy, Michurin).
(Soil mechanics) (Foundations)

DYKHOVICHNYY, Yu., inzh.

Experimental construction of houses from plastic. Na stroi.
Ros. 4 no.4:16-17 Ap '63. (MIRA 16:4)

(Moscow—Apartment houses)
(Glass reinforced plastics)

DIKHOVICHENI, IU. [Dykhovlechniy, Yu.], inzh.

Application of plastic materials in building. Stroitelstvo il no.1:
16-20 Ja '64.

1. Glavnyy konstruktor na Upravleniye za proektirane "Mosproekt",
Moskva.

DYKHOVICHNYY, Yuriy Abramovich, inzh.; KRAVTSOV, D.M., inzh.;
LEVITAN, Ye.P., kand. tekhn. nauk; MAKROUSHIN, B.M.,
inzh.; TARGANSKIY, H.L., inzh.; SHISHKIN, A.A., prof.,
doktor tekhn. nauk, retsenzent; DROZDOV, A.G., inzh.,
retsenzent; DEMENT'YEV, S.T., inzh., retsenzent; SHUKH,
A I., inzh., retsenzent; KIRILLOV, Ye.A., inzh.,
retsenzent; PERMYAKOV, S.I., kand. tekhn. nauk, retsenzent;
BALASHEV, S.I., inzh., nauchn. red.

[Large-scale fully prefabricated housing construction in
Moscow] Massovoe polosobnoe domostroenie v Moskve.

[By] Iu.A.Dykhovichnyi i dr. Moskva, Strelizdat, 1965.
275 p. (MIA 1413)

DYKHOVNYI, A. I.

Necessity of exact methods for the analysis of brandy products. Vin. SSSR
No 4;32 April 52.

ACC NR: AT7004011 (N) SOURCE CODE: UR/3239/66/000/002/0041/0044

AUTHOR: Dykhta, L. M.

ORG: None

TITLE: Potential of a pulsating source moving under the free surface of a liquid in a circular path

SOURCE: Nikolayev. Korablestroitel'nyy institut. Sudostroyeniye i morskoye sooruzheniya, no. 2, 1966. Sudostroyeniye (Shipbuilding), 41-44

TOPIC TAGS: boundary value problem, fluid dynamics, motion mechanics, hydrodynamic theory, Green function

ABSTRACT: In studying problems associated with the oscillatory motion of a ship, it is necessary to know the potential of a pulsating source--the Green's function for determining the potentials of disturbed motion of a liquid. The author solves this problem for the case of a pulsating source moving in a liquid along a circular path. A rectangular coordinate system $Oxyz$ rotates at a constant angular velocity about the vertical axis Oz , plane Oxy coinciding with the average (with respect to time) level of an infinitely deep heavy liquid. It is assumed that a pulsating source of given intensity is located at a certain depth beneath the free surface of the ideal liquid and the velocity potential of disturbed motion of the liquid is found, assuming given boundary conditions. Orig. art. has: 18 formulas.

SUB CODE: 20/ SUBM DATE: None/ ORIG REF: 003/ OTH REF: 002

Card 1/1

TYKIN, Aleksandr Vasil'yevich; BOCHAROV, L.N., red.

[Electronic and semiconductor devices] Elektronnyye i
poluprovodnikovyye pribory. Moskva, Energiia, 1965. 310 p.
(MIRA 18:7)

DYKIY, Ya.D.

The OS-116 four-spindle boring machine with diamond boring
tools. Biul.tekh.-ekon.inform. no.1:26-28 '59. (MIRA 12:2)
(Drilling and boring machinery)

DYKLOP H.L.

AUTHOR: KASNOFOL'SKIY, N.L., DYKLOP, A.E. 109-6-17/17
TITLE: Interdepartmental Seminar on Cathode Electronics. (Mezhduvedomstvennyy seminar po katodnoy elektronike, Russian)
PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol 2, Nr 6, pp 314-316 (U.S.S.R.)
ABSTRACT: At the 5. meeting on the 8. April 1957 the following lectures were delivered:
M.M.VUDYNSKIY showed that irradiation of the screen surfaces of electron beam tubes by a de-focussed bundle leads to the production of three kinds of dark spots on the screen. On this occasion the surface potential of the non-conductor changes in two stages.
I.P.ZAKIROVA and S.A.FRIDRIKHOV gave a report on the kinetics of the production of a charge on the non-conductor surfaces (glass, mica) under the effect of a bombardment by electrons (in the interval of from 20 to 15000 eV).
G.S.KOZINA spoke about the peculiarities of the secondary emission of thin free aluminum oxide films (0,05 - 0,2 μ).
M.M.VUDYNSKIY gave a short report on the dependence of the coefficient of secondary electron emission upon the angle of incidence of the primary electrons for mica and semiconductor glass.

Card 1/2

Interdepartmental Seminar on Cathode Electronics.

109-6-17/17

V.B.KRUSSEER gave a survey of the history, the present stage, and the ways of development of transmission television tubes in the U.S.S.R. He indicated the ways and means of further development. (With 3 Slavic References).

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED: 20.4.1957
AVAILABLE: Library of Congress

Card 2/2

SOKOLOV, Aleksandr Aleksandrovich, dotsent; PAVLOV, Dmitriy Vasil'yevich, dotsent; BOL'SHAKOV, Aleksey Sergeyevich, dotsent; ZHURAVSKAYA, Nina Konstantinovna, dotsent; SHOPENSKIY, Andrey Pavlovich, dotsent; DYKLOP, Eduard Petrovich, dotsent; MANERBERGER, A.A., spetsred.; KORBUT, L.V., red.; SOKOLOVA, I.A., tekhn.red.

[Technology of meat and meat products] Tekhnologiya miasa i miaso-produktov. Moskva, Pishchepromizdat, 1960. 672 p.

(MIRA 14:4)

(Meat industry)

PIROG, Petr Ivanovich; DYKLOP, E.P., retsenzents; IGNATENKO, P.L.,
retsenzents; TSYPERSON, A.L., red.; VOLKOVA, V.G., tekhn.
red.

[Principles of construction] Osnovy stroitel'nogo dela.
Moskva, Gostorgizdat, 1963. 199 p. (MIRA 16:8)
(Building)

24.7600 (1043, 1160, 1075)

85021

S/048/60/024/010/030/033

B013/B063

AUTHORS: Zhukovskiy, V. I., Dorokhova, M. P., Zarembo, N. Ye.,
Dykman, D. G., Boys, G. V.

TITLE: Data of a Thermographic Study of Barium Titanate ²¹ With
Certain Admixtures

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960,
Vol. 24, No. 10, pp. 1294 - 1295

TEXT: The authors examined the effect of commonly used admixtures upon the sintering process of barium titanate. These admixtures include ZrO_2 , Bi_2O_3 , TiO_2 , $CaCO_3$, $MgCO_3$, $BaCO_3$, etc. For this purpose, they made use of a complex thermal analysis which was conducted on an apparatus of the type YKTA-58 (UKTA-58)²¹. Barium titanate was synthesized at $1260^\circ C$. The samples were produced by the conventional ceramic process. The thermogram of barium titanate is shown in Fig.1. The first exothermic effect appears at $300^\circ C$ and is related to the burning out of the plasticizer; the second effect occurs at $1300^\circ C$ and is due to the termination of the

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Data of a Thermographic Study of Barium Titanate With Certain Admixtures

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B013/B063

production process of barium titanate. The endothermic effect observable at 870°C may be explained by the conversion of BaCO_3 contained in the material used. On the addition of TiO_2 and ZrO_2 , two other thermal effects are visible in the temperature range $1250 \div 1290^{\circ}\text{C}$: an endothermic effect on heating and an exothermic effect on cooling (Fig.2). This is presumably due to the formation of an eutectic BaTiO_3 melt with titanates of higher acidity and their subsequent crystallization. An X-ray analysis, performed by Ye. I. Gindin, of the system $\text{BaTiO}_3\text{-ZrO}_2$ indicated the existence of a solid solution with a perovskite lattice. This fact is indicative of an excessive amount of titanate dioxide. The above-mentioned thermal effects are probably related to the presence of the latter. However, the data available do not indicate the compounds that form an eutectic melt. The authors established that a liquid phase exists when sintering a material on the basis of barium titanate with the addition of TiO_2 and ZrO_2 . In the presence of MgCO_3 , CaCO_3 , BaCO_3 ,

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85021

Data of a Thermographic Study of Barium
Titanate With Certain Admixtures

S/048/60/024/010/030/033
B013/B063

and other admixtures, the thermal effects due to the presence of ZrO_2
are maintained. They are, however, suppressed by adding Bi_2O_3 . ✓

E. K. Keler and N. B. Karpenko are mentioned. The present paper was read
at the Third Conference on Piezoelectricity, which took place in Moscow
from January 25 to 30, 1960. There are 3 figures and 2 references:
1 Soviet and 1 US.

X

Card 3/3

DYKMAN, I.B., aspirant

Diagnosis and clinical aspects of hemorrhagic metropathy. Sbor.
nauch. rab. Kaf. akush. i gin. GMI no.2:94-98 '60. (MIRA 15:4)

1. Iz kafedry akusherstva i ginekologii pediatricheskogo fakul'teta
Gor'kovskogo meditsinskogo instituta. Nauchnyy rukovoditel' prof.
Dobrotin, S.S.

(HEMORRHAGE, UTERINE)

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000411730006-9

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000411730006-9"

DYKLOP, V. K.

"Factors of Meat Contamination in Technological Processing and Preventive Measures," Thesis for degree of Cand. Biological Sci. Sub 15 Jun 50, Moscow Chemico-technological Inst of Meat Industry

Summary 71, 4 Sept 52. Dissertations Presented for Degrees in Sci. and Engi. in Moscow in 1950. From Vechernyaya Moskva. Jan-Dec 1950.

DYKLOF, V. K.

Antiseptics for controlling molds in slaughter and packing houses. Mias
ind. 23, No 4, 1952.

1. DYKLOP, V., BARMASH, A.
2. USSR (600) .
4. Meat, Canned
7. Method of double sterilization of canned meat products. Mias. ind. 24, No. 1, 1953.
9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

DYKLOP, V.K.

BARMASH, A.I., kandidat tekhnicheskikh nauk; DYKLOP, V.K., kandidat biologicheskikh nauk.

Technology of ham canning. Trudy VNIIMS no.6:24-48 '54. (MLRA 10:8)
(Ham--Preservation)

DYKLOP, V. K.

BARMASH, A.I., kandidat tekhnicheskikh nauk; DYKLOP, V.K., kandidat biologicheskikh nauk.

Technology of canning frankfurters and Paris sausages. Trudy VNIIMS
no. 6:49-64 '54. (MLRA 10:8)

(Sausages--Preservation)

DYKLOP, V.

BARMASH, A., kandidat tekhnicheskikh nauk; DYKLOP, V., kandidat biologicheskikh nauk; ARENS, A.

Canned ham production. Mias.ind.SSR 25 no.2:22-26 '54. (MLRA 7:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti (for Barmash and Dyklop). 2. Rizhskiy myasokonservnyy kombinat (for Arens). (Meat, Canned)

KAZAKOV, A.M., doktor meditsinskikh nauk; DYKLOP, V.K., kandidat biologicheskikh nauk.

Studying some antibiotics used for improving the keeping quality of meat and meat products. Trudy VNIIMP no.7:30-41 '55. (MLRA 9:8)
(Meat--Preservation) (Antibiotics)

DYKLOP V.K.
LAVROVA, L.P., kandidat tekhnicheskikh nauk; LYASKOVSKAYA, Yu.N., kandidat
tekhnicheskikh nauk; SHISHKINA, N.N., kandidat tekhnicheskikh nauk;
DYKLOP, V.K., kandidat biologicheskikh nauk; IVANOVA, A.A., mlad-
shiy nauchnyy sotrudnik; KALENOVA, M.S.; DUBROVINA, L.I.; POLETAYEV,
T.N.

Protective coating for sausages. Trudy VNIIMP no.7:48-67 '55.
(MLBA 9:8)

(Sausages) (Protective coatings)

DYKLOP, V.K., kandidat biologicheskikh nauk.

~~Trudy VNIIMP no.7:151-157 '55.~~

Testing new antiseptics for controlling molds in meat combines.

Trudy VNIIMP no.7:151-157 '55.

(MLRA 9:8)

(Antiseptics) (Fungicides) (Meat industry)

ДЫКЛОП, В.К.

LAVROVA, L., kandidat tekhnicheskikh nauk; VOLOVINSKAYA, V., kandidat tekhnicheskikh nauk; ДЫКЛОП, В., kandidat biologicheskikh nauk; KALENOVA, M., inzhener.

Duration of salting period in the production of boiled sausages. Mias. ind. SSSR 27 no.4:24-29 '56. (MLRA 9:10)

(Sausages)

DYKLOP, V.

LAVROVA, L., kand.tekhn.nauk; VOLOVINSKAYA, V., kand.tekhn.nauk;
DYKLOP, V., kand.biol.nauk; KRYLOVA, V.; MERKULOVA, V.

Comminuting meat. Mias. ind. SSSR 29 no.1:11-14 '58.
(MIRA 11:3)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promysh-
lennosti.

(Sausages)

BARMASH, A.I., kand.tekhn.nauk; DERGUNOVA, A.A., starshiy nauchnyy sotrudnik;
DYKLOP, V.K., kand.bilogicheskikh nauk; DUBROVINA, L.I., mladshiy
nauchnyy sotrudnik; TRUDOLYUBOVA, G.B.; POLETAYEV, T.N.; V rabote
prinimali uchastiye; LAVROVA, L.P.; POZHARISKAYA, L.S.; ZUYEVA, L.D.;
KALITA, L.A.; NESLYUZOV, A.F.; GOL'DMAN, Ye.I.; MAKEYEVA, M.N.;
STEFANOV, A.F.

Use of blood in sausage manufacturing and canning. Trudy VNI IMP
no.9:63-74 '59. (MIRA 13:8)

1. Vsesoyuznyy nauchnoy-issledovatel'skiy institut myasnoy promy-
shlennosti (for Lavrova, Pozhariskaya, Zuyeva, Kalita, Neslyuzov).
2. Spetsialisty Moskovskogo myasokombinata (for Gol'dman, Makeyeva,
Stefanov).

(Blood as food or medicine)

(Sausages)

(Canning and preserving)

DYKMAN, I. M.

PA 51/49T70

USSR/Physics

Jul 49

.Second Sound

Semiconductors

"Bibliography of Material Available at the Scientific Library of the Physicotechnical Institute, Academy of Sciences USSR" 15 pp

"Zhur Tekh Fiz" Vol XIX, No 7

Includes articles: I. Pomeranchuk's "Influence of Admixtures on the Thermodynamic Properties and Speed of Second Sound in Helium," V. A. Fok's "Movement of Ions in Plasma," and N. M. Dykman's "Theory of Photo- and Secondary Electron Emission From Effective Semiconducting Emitters."

51/49T70

DYKMAN, I. M.

USSR/Physics - Cathode Electronics Jan 52

"Chronicles: Conference on Cathode Electronics,"
I. Dykman

"Zhur Tekh Fiz" Vol XXII, No 1, pp 175-182

From 4 to 9 Jul 51 at Kiev in the Inst of Phys,
Acad Sci Ukrainian SSR, a conference on cathode
electronics was held by the Dept of Physicomath
Sci, Acad Sci USSR, and the Dept of Physicomath and
Chem Sci, Acad Sci Ukrainian SSR, at which many in-
terested institutes and factories were represented:
Reports were presented in the following categories:
General problems on operation and structure of
cathodes; photoelec effect; secondary electron

206T108

USSR/Physics - Cathode Electronics (Contd) Jan 52

emission; thermoelectron emission; cathodes under
discharge conditions and ionic bombardment. Ab-
stracts of reports given. Submitted 1 Oct 51.

206T108

USSR .

Excitons in ionic crystals. L. M. Dykman and S. Y. Pekar. *Trudy Inst. Fiz. Akad. Nauk SSSR* 1, 92-110 (1952); cf. following abstr. — Excitons of large radius are studied for the case in which a conducting electron and a vacancy which are formed by the absorption of a light quantum, move like 2 quasi-particles related by their Coulomb attraction. The inertia polarization of the crystal by the av. field of the electron and the vacancy is taken into consideration. It is shown that 2 excitons, which differ qualitatively, are possible depending upon the crystal parameters: (1) excitons not causing inertia polarization of the crystal, and (2) excitons which create a local, self-consistent inertia polarization of the crystal. J. Rovyar Leach.

BB

DYKMAN, I. M.

USSR/Physics - Exitons, Luminescence 21 Apr 52

"Exitons in Ionic Crystals," I. M. Dykman, S. I. Pekar

"Dok Ak Nauk SSSR" Vol LXXXIII, No 6, pp 825-828

Investigates the exciton taking into account its strong interaction with the oscillations of ions. Considers the case where the radius of the electron's orbit or of the hole is so big that the interaction between them can be taken as the interaction between 2 opposite point charges and application of the method of effective mass is valid. States that if polarizing excitons are formed during absorption of

223791

light quanta then induction in the finite state does not equal zero; the spectra of absorption and luminescence in this case are reflected in the rather wide bell-shaped curves. Submitted by acad A. F. Ioffe 23 Feb 52.

223791

DYKMAN, I. M.; PEKAR, S. I.

"Excitons in ionic crystals," Doklady, A.N. USSR, vo. 83, 1953,
p. 825 (7 pp.).

B-84049, 7 Apr 55

U S S R .

✓ Exciton absorption of light in a potassium chloride-type crystal. I. M. Dykman. *Trudy Inst. Fiz. Akad. Nauk Ukr. S.S.R.* 1986, No. 46, 8488, preceding abstr. — The half-width was calculated of the absorption band for the exciton absorption of light by a KCl-type crystal. The temp. dependence of the half-width was determined. A generalized model was given for the polarized exciton. The displacement and polarization of the lattice ions due to the field of the exciton were determined by means of a detailed microscopic detn. of the crystal structure. The theoretical values agree with exptl. values. J. Roctar Leuch.

BB

USSR.

The photoeffect from colloidal metal particles
Dytkman. *Izvest. Akad. Nauk SSSR Ser. Fiz. Nauk*
94-104(1954). — The qual. characteristics are given of the
photoeffect from metallic particles whose sizes have been
reduced to $10^{-4} - 10^{-5}$ cm. The authors show
that the photoeffect is related to the frequency of the light
and the dimensions of the particles. The photoeffect is
thin metal films and for metal spheres. The characteristic
photoeffect is explained by the discrete structure of the valence
electron energy levels.

USSR/Physics - Excitons

FD-1363

Card 1/1 : Pub. 146-B/18

Author : Dykman, I. M.

Title : ~~Excitons in crystals of type KCl~~
Polarizing excitons in crystals of type KCl

Periodical : Zhur. eksp. i teor. fiz., 26, 307-316, Mar 1954

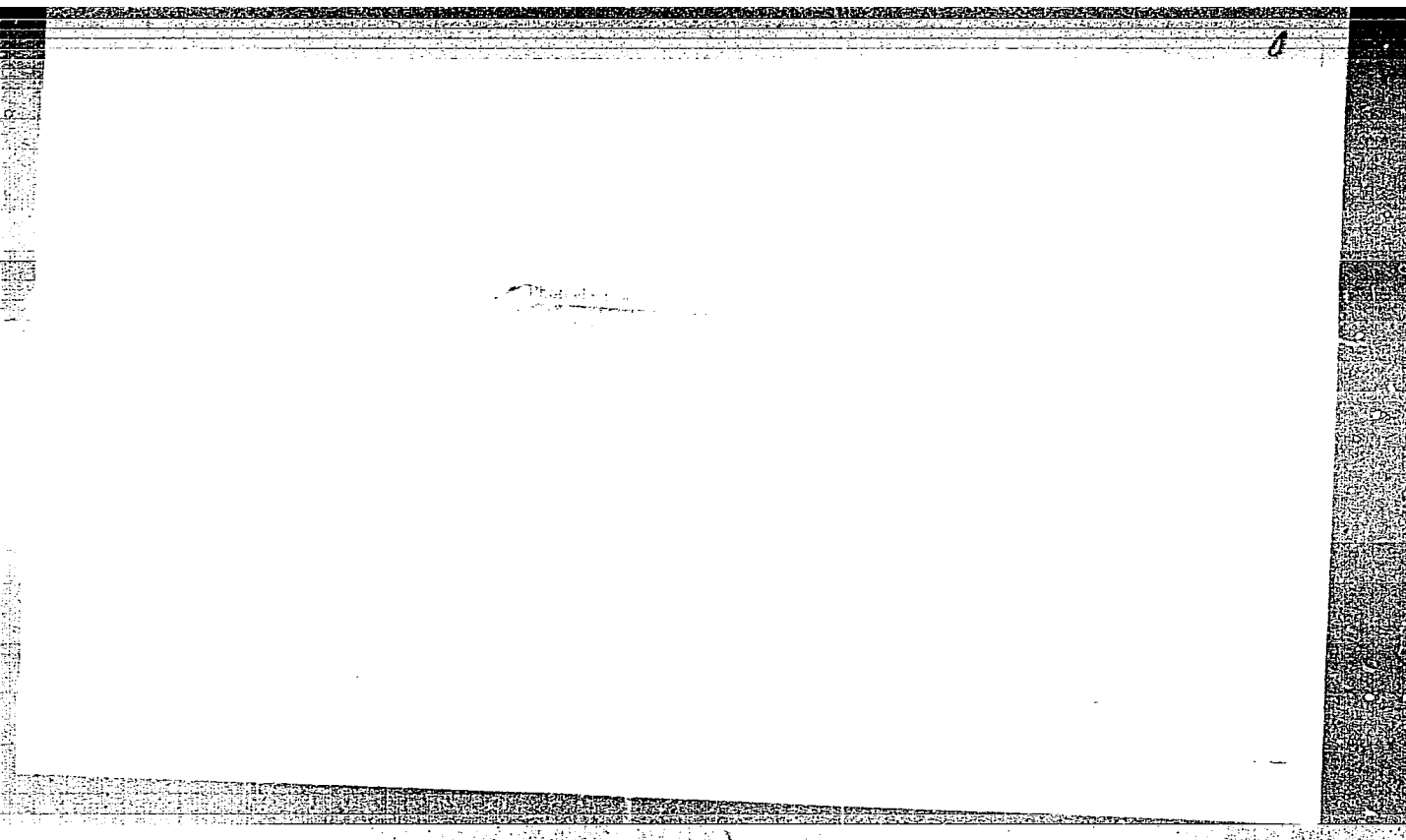
Abstract : As a model of a polarizing exciton in alkali halide crystals, the author proposes an electric multipole consisting of positive charge $+e$ located at the halide junction of the lattice and six negative charges $-e/6$ located at the closest metal junctions. He determines the displacements and polarization of the ions of the lattice which are caused by the field of the exciton, taking into account the microscopic structure of the crystal. On the example of the KCl crystal he considers the exciton absorption of light and computes the half width of the corresponding band of absorption and also its temperature dependence. Acknowledges interest and discussions of Prof. S. I. Pekar and K. B. Tolpygo.

Institution : Institute of Physics, Academy of Sciences of Ukrainian SSR

Submitted : July 21, 1953

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000411730006-9



APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000411730006-9"

Dykman, I. M.

USSR/ Chemistry - Colloids

Card 1/2 Pub. 22 - 27/52

Authors : Glazman, Yu. M., and Dykman, I. M.

Title : Coagulation of lyophobic sols under the effect of electrolyte mixtures

Periodical : Dok. AN SSSR 100/2 299-302, Jan 11, 1955

Abstract : It was established that when the process of coagulation of lyophobic sols is not complicated by additional phenomena like adsorption, chemical reaction, etc, the addition to the sol of two electrolytes (differing in valence of the coagulating ions) will be expressed by a plain synergism effect. The phenomena of instances where antagonism may appear are discussed.

Institution : The Technological Institute of Light Industry, Kiev

Presented by : Academician A. N. Frumkin, July 29, 1954

Periodical : Dok. AN SSSR 100/2, 299-302, Jan 11, 1955

Card 2/2 Pub. 22 - 27/52

Abstract : The antagonism was found to be in some way connected with the adsorption reactions which take place during the addition of electrolytes to the sol. The role of the colloidal-dispersion phase in the process of sol coagulation is explained. Seven references: 4 USSR, 2 German and 1 Dutch (1927-1946). Graph.

DYKMAN, I.M.

Changes in the electron emission yield of metals following the adsorption of dipole molecules by the metal surface. Ukr.fiz.zhur. 1 no.1: 81-87 '56. (MLBA 9:11)

1. Institut fiziki Akademii nauk URSR.
(Electron emission) (Barium) (Tungsten)

[157/157/157]

Category : USSR/Electronics - General Problems

H-1

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1632

Author : Dykman, I.M.

Title : Conference on Cathode Electronics in 1955

Orig Pub : Radiotekhn. i elektronika, 1956, 1, No 3, 393-403

Abstract : Contents of the papers delivered at the conference devoted to problems of cathode electronics, held in Kiev on 25-30 November 1955. (thermal, field, photoelectric and secondary-electron emission, and cathode sputtering). See also Abstract No 1631.

Card : 1/1
: 1

6000

Coagulation of lyophobic sols by the action of electrolyte mixtures. Yu. M. Glazunov and I. M. Dykman (Technol.

Inst. Light Ind., Kiev). Kolloid. Zhur. 18, 13-25 (1956);
cf. C.A. 47, 11880f; 49, 13739d. —The mutual repulsion of 2
diffuse double layers in a common soln. of a uni-univalent
and a bi-bivalent electrolyte is calcd. by the method of
Deryagin and Landau (C.A. 39, 4533). Coagulation occurs
when the van der Waals' attraction overcomes this repulsion.
At all ratios of the concns. of the 2 electrolytes, the mix
is a stronger coagulant than is the sum of the components.
As this conclusion is not in accord with many observations,
the electrostatic repulsion is not the only factor in the co-
agulation process. 30 references. J. J. Bikerman

PM JSH

DYKMAN, I. N.

"Variation of Output Work During Adsorption of Dipole Molecules on the Metallic Surface," by I. M. Dykman, Institute of Physics, Academy of Sciences Ukrainian SSR, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol 20, No 9, Sep 56, p 1076 (abbreviated report; full text published in Ukr. Fiz. Zhurn. 1, 81, 1956)

The variation of the output work of the metal during the adsorption of atoms or molecules on its surface substantially depends not only on the interaction of the adsorbed molecules with the adsorbent metal, but also on the mutual interaction of the adsorbent molecules. During a physical adsorption when the molecule has some dipole moment, the drop of the output work may be explained by a dominating orientation of molecular dipoles. The article assumes that an electric field E acts at the metallic surface, at a short distance in a direction pointing from the metal to the vacuum. The electrostatic interaction of adsorbed molecules is taken into account. The application of statistics allows, within limits of a monomolecular layer, obtaining the relation of the output work drop to the concentration of adsorbed molecules. The plotted curve has a maximum.

Results of the computation were applied to the case of adsorption of BaO and CsCl molecules on W and compared with the corresponding experimental data of N. D. Morgulis and V. M. Gavriluk. In these two cases the E values from theoretical and experimental data concurred with a degree of accuracy sufficient for the qualitative case.

Sum 1258

DYKMAN, I.M.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1836
AUTHOR DYKMAN, I.M., KAPLUNOVA, E.I., TOLPYGO, K.B.
TITLE The Field Mass of the Polarizing Exitons in Ion Crystals.
PERIODICAL Zhurn.techn.fis, 26, fasc. 11, 2459-2466 (1956)
Issued: 12 / 1956

The present work investigates the comparatively slow motion of an exciton as a whole. In this case the velocity of the displacement of the "center of mass" of the "polarization trough" is to be understood (in the exciton- as well as in the polaron theory), which agrees with the motion of an electron and hole. It is then possible, when developing the exciton energy according to the powers of the velocity v , to content oneself with the quadratic term. The coefficient near

$v^2/2$ is then the effective mass of the exciton.

The macroscopic computation of the effective mass of the exciton: Several previous works are cited, whereupon the formula for the effective mass M , which was derived by L.G.LANDAU and S.I.PEKAR (Zhurn.eksp.i teor.fis, 18, 419 (1948)), is given and specialized for the spherical-symmetric states of the excitons (particularly for the lowest 1s-state). Finally, the definite formula for M is given without following the entire course of computation. Under certain conditions the value

$M \sim 10^5 - 10^6$ electron masses is obtained for NaCl, KCl and other alkali halide crystals. However, so large effective masses of the exciton apparently do not correspond to the actual values for these materials. Therefore, the microscopic structure of the crystals must be taken into consideration in this connection.

Žurn.techn.fis, 26, fasc. 11, 2459-2466 (1956) CARD 2 / 2 PA - 1838

The microscopic computation of the effective mass of the exciton: For the computation of the displacement of the ions the potential energy of the interaction between the crystals with an electron and a hole is written down. The induction $\vec{D}(\vec{r})$ occurring in this formula is computed as the induction of a multipole with the usual formulae for electrostatics. The displacements and the dipole moments of all ions can easily be determined after transition to the normal coordinates. The deformation in the distribution of the exciton charge and the modification of the forces acting upon the surrounding ions (if the displacement of the ions is less than the lattice constant), are neglected. When computing the forces brought to bear by the excitons onto the ions, the field of the exciton is considered to be the field of a system of seven charges which move with progressive uniformity within the space. The formula for the effective mass M found under these and other conditions is given.

The numerical values of the effective mass of the exciton in KCl- and NaCl-crystals, which are discussed at the end, show that the effective mass of the exciton has essentially a fieldlike character.

INSTITUTION: